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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,605	06/03/2005	Bruce P. Swaybill	60,469-219;OT-5094	3567

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EXAMINER	
KRUER, STEFAN	
ART UNIT	PAPER NUMBER
3654	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/537,605	SWAYBILL ET AL.	
	Examiner	Art Unit	
	Stefan Kruer	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 3, 6 - 10, 13 - 19, 22 and 25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 3, 6 - 10, 13 - 19, 22 and 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 June 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last Office action, particularly with respect to Claim 16, is persuasive and, therefore, the finality of that action is withdrawn.

Claim Objections

Claims 7 and 10 are objected to because of the following informalityies:

- **Claim 7**, "a" of "... device for [a] machine-roomless elevator..." is missing.
- **Claim 10**, "including" of "... including at least one transverse member..." should be written as "include".

Appropriate corrections are required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites the limitation "the" in "the support". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 3 are rejected under 35 U.S.C. 102(a) as being anticipated by Ericson et al (6,364,062).

Re: Claims 1 - 3, Ericson et al disclose:

- A machine supporting portion (12, 14 and sheet intermediate 24 and 16, 18) that secures a machine (10) in a selected position in a hoistway (24, Col. 2, Line 24),
- A first and a second termination supporting portion (34, 36), each securing a plurality of terminations members (Col. 2, Line 45) in a selected position,
- A sheave supporting portion (16, 18) that supports a one and a second sheave (22, Col. 4, Line 13),
- The supporting portions being secured to form a single structure that supports the machine, the termination members and the sheave, the single structure being located inside the hoistway and the supporting portions each comprise a plurality of metal sheets secured together.

In reference to the claim language referring to a support device for a machine-roomless elevator system, intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963).

Claims 1 – 3, 6 – 9, 22 and 25 are rejected under 35 U.S.C. 102(a) as being anticipated by Sieffert (3,519,101).

Re: Claims 1 – 3 and 6, Sieffert disclose:

- A machine supporting portion (161, Fig. 11) that secures a machine (including 181, 178, 182) in a selected position in a hoistway,

- A first and a second termination supporting portion (179, Fig. 11 and 10 and 173, Fig. 12), each securing a plurality of terminations members (46 and 171, respectively) in a selected position,
- Wherein the first and second termination supporting portions are associated with an elevator cab (177) and counterweight (175) respectively,
- A sheave supporting portion (51) that supports a one and a second sheave (49, 49),
- The supporting portions being secured together to form a single structure that supports the machine, the termination members and the sheaves, the single structure being located inside the hoistway and the supporting portions each comprise a plurality of metal sheets secured together.
- Wherein the machine supporting portion and the sheave supporting portion comprise two lateral beam members (162, 163 and members on which 181 are mounted, respectively).

Re: Claims 7 - 9, Sieffert discloses:

- a machine supporting portion (161, Fig. 11) securing a machine in a selected position in a hoistway,
- a termination supporting portion (173) that secures a plurality of terminations (172) in a selected position,
- a sheave supporting portion (182) to support at least one sheave (181),
- the supporting portions being secured together to form a single structure that supports the machine and the sheave,
- the machine- and sheave supporting portions each comprising two lateral beam members (162, 163 and not numbered, respectively, Fig. 12) spaced from each other;
- the termination supporting member comprises at least one transverse member (168) extending between and secured to the lateral beam members,

- including two spaced lateral beam members (162, 163), at least one transverse member (164, 165) extending between and secured to the lateral beam members near each end of the beam members;
- a mounting member (88, 89; Col. 9, Line 23) near each end of each of the lateral beam members, the mounting members adapted to secure the device to a structure (166) that carries a load of the device and associated elevator system components;
- a plurality of vertical brace members (subsequently attached to 166) to each of the mounting members and corresponding portions of the lateral beams members.

Re: Claim 22, Sieffert discloses:

- a machine supporting portion (151, 155, Fig. 11) that secures a machine (27) in a selected position,
- a termination supporting portion (47) that secures a plurality of termination members in a selected position,
- a sheave supporting portion (182, 161) that supports at least one sheave (181),
- the supporting portions each comprising a plurality of metal sheets secured together (Col. 9, Lines 1 – 31), the supporting portions being secured together to form a single structure that supports the machine, the termination members and the sheave.

Re: Claim 25, Sieffert discloses:

- preassembling a support device (23, 24 and 25),
- securing a machine to the support device (27),
- lowering the support device with the machine secured to the support device into a first selected position in a hoistway (depicted, not numbered),
- then subsequently raising the support device and positioning it in a second selected position in the hoistway (Col. 2, lines 53 – 62 and Col. 6, Line 23)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10 – 11 and 13 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmon et al in view of de Jong et al (5,361,873) and in further view of Orrman et al (US 2002/0017434).

Re: Claims 10, Salmon et al disclose:

- a machine having a motor (10) and a drive sheave (12) inside a hoistway,
- an idler sheave (16) inside a hoistway,
- an elevator cab ("car"),
- a counterweight ("C.W.")
- a plurality of elongated load bearing members (20) associated with the cab and counterweight, said load bearing members being moveable about the drive sheave and idler sheave in response to operation of the machine;
- a single support device in the hoistway that secures the machine and sheave in a desired position in the hoistway relative to the cab and counterweight;
- the support device includes two lateral beam members (14) that provide support for the machine and the sheave, the lateral beam members are spaced from each other;

however, Salmon et al are silent regarding terminating members and their support, as well as a machine-roomless elevator system.

Attention is directed to de Jong et al who teach the structure of Salmon et al with an additional idler sheave and a single support device for their machine supporting and sheave supporting portions, which comprises lateral- and transverse beam members for a machine-roomless elevator system (Col. 4, Line 55). The orientation of their traction

and idler sheave(s) incorporate an offset(s) with respect to their parallel axes in order to accommodate a desired frictional loading without compromising the service life of their ropes. Furthermore, their transverse members are secured near longitudinal ends of their lateral beam members, which, in total, comprise their single support device in the (Fig. 5) that supports and secures their machine, at least one sheave and their load-bearing members in a desired position; however, de Jong et al are silent regarding terminations.

Nevertheless, terminations at ends of elongated load bearing members for supporting an elevator cab and counterweight in 1:1 suspensions are known in the art.

Further consideration, however, is directed to Orrman et al who teach their terminations (10, 11) associated with the ends of their load bearing members (9), their terminations fixed to a common support device that secures the machine and terminations in a desired position inside the hoistway relative to their cab (2) and counterweight (4) as a "...compact package... suited for... modernization projects... and (sic) an elevator without a machine room..." (Para. 0011).

It would have been obvious to one of ordinary skill in the art to modify the reference of Salmon et al with the teaching of de Jong et al, to provide a single support device for the machine, sheave and terminations, wherein the terminations are secured to the elevator cab and counterweight in a 1:1 suspension arrangement of a machine-roomless elevator as known in the art or, additionally, through the teaching of Orrman et al, to afford a 2:1 suspension arrangement as a compact arrangement suitable for elevators without a machine room.

Re: Claim 11, Salmon et al disclose their support device includes two lateral beam members to support the machine and sheave.

Re: Claim 13, Salmon et al and de Jong et al are silent regarding termination members with respect to their single support device.

Attention is directed to Orrman et al who teach their termination members approximate either end of their single support device, in keeping with the planes of motion of their elevator car and counterweight.

It would have been obvious to one of ordinary skill in the art to modify the reference of Salmon et al with the teachings of de Jong et al and Orrman et al to mount a second plurality of termination members along opposing transverse members of de Jong et for symmetry.

Re: Claim 14, Salmon et al disclose their support comprise a plurality of metal beam members.

Re: Claim 15, Salmon et al disclose their idler sheave and drive oriented to each other so that the elongated load bearing members deflect vertically, deflect about the idler sheave in a generally horizontal direction and then are wrapped at least 180° around the drive sheave; however, Salmon et al disclose an elevator having a machine room.

Attention is directed to de Jong et al who teach their elevator without a machine room whereby their idler sheave and drive oriented to each other so that the elongated load bearing members deflect vertically, deflect about the idler sheave in a generally horizontal direction and then are wrapped at least 180° around the drive sheave, for the features of lighter elevator cars, smaller motors and reduction in energy consumption.

Re: Claim 16, as reviewed in Claim 10, Salmon et al are silent regarding terminating members and their support, as well as a machine-roomless elevator system; however, they disclose their idler sheave and drive rotating about non-parallel axes and a wrap angle of at least 180° around their drive sheave.

Attention is directed to de Jong et al who teach who teach the single support device in the (Fig. 5) that supports and secures their machine, at least one sheave and their load-bearing members in a desired position, for a machine-roomless elevator. Furthermore, as reviewed in Claim 10, de Jong et al teach their idler and drive sheaves rotating about parallel axes for the benefit of improved service life of their elongated load bearing members, as well as a wrap angle of at least 180°, thereby enabling the reduction in weight of the elevator system; however, de Jong et al are silent regarding terminations.

Attention is directed to Orrman et al who teach their termination members approximate either end of their single support device, in keeping with the planes of travel of their elevator car and counterweight.

It would have been obvious to one of ordinary skill in the art to modify the reference of Salmon et al with the teachings of de Jong et al and Orrman et al to mount a second plurality of termination members along opposing transverse members of de Jong et al for symmetry and the minimization of deflective stress.

Claims 17 - 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sieffert in view of De Jong et al.

Re: Claims 17 - 19, Sieffert discloses:

- assembling a support device (Col. 6, Line 25),
- securing a machine (27, Col. 7, Line 12) to the support device,
- securing at least one idler sheave (29, Col. 3, Line 40) to the support device,
- a sheave supporting portion (182, 161that supports at least one sheave (181),
- subsequent to the assembling and securing, lowering the support device with the machine secured to the support device into a selected position in a hoistway (Col. 7, Line 13),
- the use of a crane (in conjunction with hook, 39, Col. 7, Line 3) to lower the support device and the machine into the selected position,
- lowering the support device into a first selected position in the hoistway and then subsequently raising the support device and positioning it in a second selected position in the hoistway (Col 6, Line 30 and Col. 7, Line 9);

however, Sieffert is silent as to his idler sheave being parallel with his drive sheave (28).

Attention is directed to de Jong et al who teach their drive sheave (3) parallel with their idler sheave (9) (Col. 2, Lines 51 – 54) in order to minimize stresses in their roping and drive components due to offset loads.

It would have been obvious to one of ordinary skill in the art to modify the reference of Sieffert with the teaching of de Jong et al to prolong operating life of roping.

Response to Arguments

Applicant's arguments filed 19 March 2007 have been fully considered but they are mute upon new grounds of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Morris et al (4,537,286), Wagatsuma et al (6234276) and Heikkinen (5,076,398) are cited for reference of a support device having a large plurality of termination members suspended from *termination-support members mounted on either overhead-, machine- or overhead beams*; a termination support device comprising first and second termination-supporting portions, each for a plurality of termination members, wherein the supporting portion comprises one metal sheet; and, an elevator system comprising the a single support device for a motor, drive and idler sheaves, wherein the wrap angle about the drive sheave is greater than 180°, repsectively

Glassey et al (6,446,763) and both Chapelain et al (5,000,292) and Pettersson et al (6,357,556) are cited for a support device for machine-roomless elevator systems and methods and apparatus for the installation of elevators in machine-roomless systems, respectively.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Kruer whose telephone number is 571.272.5913. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571.272.6911. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866.217.9197 (toll-free)

SHK
23 March 2007

GENE O. CRAWFORD
SUPERVISORY PATENT EXAMINER